Electronic Version v18

Stylesheet Version v18.0

Title of Invention

System and Method for Classifying Signals Using Timing Templates, Power Templates and Other Techniques

Application Number:

10/628603

Confirmation Number:

4642

First Named Applicant:

Karl Miller

Attorney Docket Number:

Cognio63US3

Art Unit:

2681

Examiner:

Search string:

(6850735 or 6714605 or 20030198200 or 20030224741 or 20040028003 or

20050032479 or 20040137915 or 20050002473).pn

US Patent Documents

Note: Applicant is not required to submit a paper copy of cited US Patent Documents

init	Cite.No.	Patent No.	Date	Patentee	Kind	Class	Subclass
MM	1	6850735	2005-02-01	Sugar et al.	B2	455	67.11
WW.	2	6714605	2004-03-30	Sugar et al.	B2	375	. 340

US Published Applications

Note: Applicant is not required to submit a paper copy of cited US Published Applications

init	Cite.No.		Date	Applicant	Kind	Class	. Subclass
MN	1	20030198200	2003-10-23	Diener et al.	A1	370	329
MW	2	20030224741	2003-12-04	Sugar et al.	A1	455	115.1
NW	3	20040028003	2004-02-12	Diener et al.	A1	370	319
MW		20050032479	2005-02-10	Miller et al.	A1	455	67.11
MÌN		20040137915	2004-07-15	Diener et al.	A1	455	456.1
MW	6	20050002473	2005-01-06	Kloper et al.	A1	375	316

Examiner,Name	Date
Mulard	5-21-06
1,00	



Electronic Version v18 Stylesheet Version v18.0

> Title of Invention

System and Method for Classifying Signals Using Timing Templates, Power Templates and Other Techniques

Application Number:

10/628603

Confirmation Number:

4642

First Named Applicant:

Karl Miller

Attorney Docket Number: Cognio63US3

Art Unit:

2681

Search string:

(5432862 or 6385434 or 4597107 or 5905949 or 5651030 or 4501020 or 4227255 or 4166980 or 6084919 or 5832038 or 4845707 or 5353346 or 5912922 or 6519541 or 5210820 or 3609553 or 5144642 or 4947338 or 5608727 or 5005210

or 6240282 or 6463294 or 4979211 or 4271523

or 20030123420 or 20020137485 or

20030040277 or 20020155811 or 20020086641

or 20020154614 or 20020142744 or 20030050012 or 20010019543).pn.

US Patent Documents

Note: Applicant is not required to submit a paper copy of cited US Patent Documents

init	Cite.No.	Patent No.	Date	Patentee	Kind	Class	Subclass
MM	1	5432862	1995-07-11	Hirsch		382	207
MM	2	6385434	2002-05-07	Chuprun et al.	B1	455	11.1
M	3 .	4597107	1986-06-24	Ready et al.		455	226
MM	4	5905949	1999-05-18	Hawkes et al.		455	410
MIN	5	5651030	1997-07-22	Wong et al.		375	316
M	6	4501020	1985-02-19	Wakeman		455	226
MK	7	4227255	1980-10-07	Carrick et al.		455	226
MM	8	4166980	1979-09-04	Apostolos et al.		325	363
MM	9	6084919	2000-07-04	Kleider et al.		375	285
M	10	5832038	1998-11-03	Carsello		375	216
M	11	4845707	1989-07-04	Isaacson et al.		370	480
MW	12	5353346	1994-10-04	Cox et al.		379	386

MM	13	5912922	1999-06-15	Koszarsky et al.	ĺ	375	224
MU	14	6519541	2003-02-11	Bitton	B1	702	76
MM	15	5210820	1993-03-11	Kenyon		395	2
Min	16	3609553	1971-09-28	Frazier et al.]	325	67
MM	17	5144642	1992-09-01	Weinberg et al.]	375	10
MM	18	4947338	1990-08-07	Vistica]	364	485
M	19	5608727	1997-03-04	Perreault et al.		370	462
MM	20	5005210	1991-04-02	Ferrell		455	115
WW	21	6240282	2001-05-29	Kleider et al.	B1	455	. 226.1
MN	22	6463294	2002-10-08	Holma et al.		455	513
M	23	4979211	1990-12-18	Benvenuto et al.		704	· 251
M	24	4271523	1981-06-02	Gable]	714	811

US Published Applications

Note: Applicant is not required to submit a paper copy of cited US Published Applications

init	Cite.No.	Pub. No.	Date	Applicant	Kind	Class	Subclass
M	1	20030123420	2003-07-03	Sherlock	A1	370	338
	2	20020137485	2002-09-26	Nilsson et al.	A1	455	184.1
M	3	20030040277	2003-02-27	Deats	A1	455	63
MM	4	20020155811	2002-10-24	Prismantas et al.	A1	455	63
M	5	20020086641	2002-07-04	Howard	A1	455	67.1
MM	6	20020154614	2002-10-24	Jagger et al.	A1	370	332
W	7	20020142744	2002-10-03	Okanoue et al.	A1	455	226.1
W	8	20030050012	2003-03-13	Black et al.	A1	455	62
W	9	20010019543	2001-09-06	Mueckenheim et al.	A1	370	329

Examiner Name	Date
L Mylah	5-21-06

STANDARD CONTRACTOR AND A STANDARD CONTRACTO

s	ubstitute for form 14	149A/PT	ю	Complete if Known			
•				Application Number	10/628,603		
I	NFORMATION	ON DI	ISCLOSURE	Filing Date	July 28, 2003		
9	STATEMENT	BY	APPLICANT	First Named Inventor	Karl Miller		
				Group Art Unit	2681		
	(use as many s	sheets a	s necessary)	Examiner Name	Unknown		
Sheet	1	of	1	Attorney Docket Number	0370.0063C3		

	U.S. PATENT DOCUMENTS								
		U.S. Patent Document			Date of Publication of Cited				
Examiner Initials*	Cite No.	Number	Kind Code ² (if known)	Name of Patentee or Applicant of Cited Document	Document MM-DD-YYYY				
W M		6,697,013	B2	McFarland et al.	02-24-2004				
14									
	-								
				•					
	 								
	 	 							
	+-								
		<u> </u>			<u> </u>				

	FOREIGN PATENT DOCUMENTS										
Examiner Initials*	Cite				News of December of Ameliana of Cited	Date of Publication					
initiais	No. ¹	Office ³	Number ⁴	Kind Code ³ (if known)	Name of Patentee or Applicant of Cited Document	of Cited Document MM-DD-YYYY	T ⁶				
							l				
	T -										
		1									

Examiner Signature	MMlord	Date Considered	5-21-06	

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Unique citation designation number.

² See attached Kinds of U.S. Patent Documents.

³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3).

For Japanese patent documents, the indication of the year of the reign of the Empror must precede the serial number of the patent document.

Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible.

⁶ Applicant is to place a check mark here if English language Translation is attached.



Electronic Version v18 Stylesheet Version v18.0

> Title of Invention

System and Method for Classifying Signals Using Timing Templates, Power Templates and other Techniques

Application Number:

10/628603

Confirmation Number:

4642

First Named Applicant:

Karl Miller

Attorney Docket Number: Cognio63US3

Art Unit:

2681

Search string:

(6629151 ör 6226680).pn.

US Patent Documents

Note: Applicant is not required to submit a paper copy of cited US Patent Documents

init	Cite.No.	Patent No.	Date	Patentee ⁻	Kind	Class	Subclass
M	1	6629151	2003-09-30	Bahl	B1	709	250
M	2	6226680	2001-05-01	Boucher et al.	B1	709	230

Examiner Name	Date
MMulad	5-21-04



Electronic Version v18
Stylesheet Version v18.0

Title of Invention System and Method for Classifying Signals Using Timing Templates, Power Templates and Other Techniques

Application Number:

10/628603

Confirmation Number:

4642

First Named Applicant:

Karl Miller

Thou Harmoo Applicant.

Attorney Docket Number: Cognio63US3

Art Unit:

2681

Search string:

(5687163 or 6466614 or 3812291 or

•

6240372).pn.

<u>Certification:</u> This Information Disclosure Statement was submitted under the following conditions, which satisfies the requirement under 37 CFR 1.97(e). The filer certified:

That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement.

US Patent Documents

Note: Applicant is not required to submit a paper copy of cited US Patent Documents

init	Cite.No.	Patent No.	Date	Patentee	Kind	Class	Subclass
W	1	5687163	1997-11-01	Fox et al		370	207
MM	2	6466614	2002-10-01	Smith, Brian K.		375	224
W	3	3812291	1974-05-01	Brodes et al.		704	253
M	4	6240372	2001-05-01	Gross et al.		702	. 71

Examiner Name	Date
MML&g	5-31-06



Electronic Version v18 Stylesheet Version v18.0

> Title of Invention

System and Method for Classifying Signals Using Timing Templates, Power Templates and Other Techniques

Application Number:

10/628603

Confirmation Number:

4642

First Named Applicant:

Karl Miller

Attorney Docket Number: Cognio63US3

Art Unit:

2681

Search string:

(20020173272).pn.

US Published Applications

Note: Applicant is not required to submit a paper copy of cited US Published Applications

init Cite.No.	Pub. No.	Date	Applicant	Kind	Class	Subclass
MM 1	20020173272	2002-11-21	Liang et al	A1	455	63

Examiner Name	Date
Mulary	5-31-06



COGNIO, INC.

101 ORCHARD RIDGE DRIVE, SUITE 350 GAITHERSBURG, MARYLAND 20878

T OF PATENTS AND PUBLICATIONS FOR APPLICANT'S INFORMATION DISCLOSURE STATEMENT

SERIAL NO.: 10/628,603
APPLICANT(S): Karl A. Miller

FILING DATE: July 28, 2003 TODAY'S DATE: January 20, 2004

FOREIGN PATENT DOCUMENTS

Examiner Initial	<u>Document</u> Number	Date	Country	Class/Subclass	Translation (Yes or No)
MM_AA	2260336	08/15/2000	Canada	CO1R 29/26	·
MM AB	2298316	08/15/2000	Canada	HO4B 1/16	
MM AC	<u>JP 2000-</u> 022712	01/21/2000	Japan		Yes (Partial)

OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

	R ART (Including Author, Title, Date, Pertinent Pages, Etc.)			
*Examiner	Author, Title, Date, Pertinent Pages, Etc			
<u>Initial</u>				
M . d.	Agilent Publication, "Agilent 89400 Series Vector Signal Analyzer			
WW_BA	Product Overview, " 2000.			
(M/W/)	Agilent Publication, "Agilent Technologies: 2G & 3G Solutions-			
/ <u>///</u> BB	Accelerating Progress, " 2002.			
	Agilent Publication, "Agilent Technologies: Power Solutions To			
ditta	Complex Measurement Problems; Burst, Transient and Modulated			
V/V BC	Signal Analysis, " 2000.			
7	Agilent Publication, "Agilent PN 89400-8 Using Vector Modulation			
(VVVV	Analysis In The Integration, Troubleshooting And Design Of			
_ <u>\'\\\</u> BD	Digital RF Communications Systems, " 2000 (and earlier).			
	Agilent Publication, "Agilent PN 89400-10 Time-Capture			
1/000	Capabilities Of The Agilent 89400 Series Vector Signal			
NW BE	Analyzers, " 2000 (and earlier).			
111	Agilent Publication, "Agilent 89440A-1 Frequency And Time-			
Mr VV	Selective Power Measurements With The Agilent 89410A and 89440A,"			
<u> </u>	2001 (and earlier).			
707	Canadian Communications Research Center, "Spectrum Explorer			
n.h.	Project Of Canadian Communications Research Center, " 1998 (and			
<u>WW</u> BG				
Jilly	Stanford Research Systems, "Stanford Research Systems SR785 Two			
MW_BH				
- "	Carlemalm, Catharina, "Suppression Of Multiple Narrowband			
'	Interferers In A Spread-Spectrum Communication System, " August,			
18.4	2000, IEEE Journal on Selected Areas in Communications, Special			
MM_BI	Issue on Broadband Communications, Vol. 18.			

		
Examiner		Date
Signature	MW & SA	
Signature	MINACOUN	Considered 5- Al-U6

^{*} EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant(s)

JAH 22 7004 E

COGNIO, INC.

101 ORCHARD RIDGE DRIVE, SUITE 350 GAITHERSBURG, MARYLAND 20878

P PATENTS AND PUBLICATIONS FOR APPLICANT'S INFORMATION DISCLOSURE STATEMENT

ATTY. DOCKET NO.: Cognio63US3
SERIAL NO.: 10/628,603
APPLICANT(S): Karl A. Miller

GROUP ART UNIT: 2681

FILING DATE: July 28, 2003
TODAY'S DATE: January 20, 2004

	Lo, Victor Yeeman, "Enhanced Spectral Analysis Tool (SAT) For			
MARIA	Radio Frequency Interference Analysis And Spectrum Management,"			
_ <u>WW</u> BJ	Milcom, 1998.			
MM_BK	Tektronix, "Real-Time Spectrum Analysis Tools Aid Transition To Third-Generation Wireless Technology," 1999.			
	Patenaude, François et al., "Spectrum Surveillance: System			
Architecture, " CRC-TN-97-001, Canadian Communications Research				
<u> WW</u> BL	Centre, April 15, 1997.			
	Mobilian Corporation, "WI-FI™ (802.11b) and BLUETOOTH™: an			
Examination of Coexistence Approaches, "Mobilian Corporation				
<u>\V\{V\</u> BM	2001.			
	RSMS Publication, "Radio Spectrum Measurement System			
1 1.6	(RSMS) Program—Functional Measurements, " January 29, 2001, 5			
_/////_BN	pages.			
	Schreyogg, Christoph et al., "Robust Classification Of Modulation			
20.00	Types Using Spectral Features Applied To HMM, " 1997, 5 pages.			
<u> V\ V\</u> BO				
h. d.	Tektronix, "Validation Testing Of Bluetooth Wireless LAN			
<u>MM</u> BP	Systems, "Tektronix Application Note, 2001.			
N. W.	Lallo, Pauli, "Signal Classification By Discrete Fourier			
M/M BQ	Transform", Milcom Conference Proceedings, 1999.			
. (,)	Quint et al., "Emitter Detection And Tracking Algorithm For A			
$ h_i h_i \rangle$ Wide Band Multichannel Direction-Finding System In The HF Band				
₩W BR	Milcom Conference Procedings, 1999.			
holla	Dubuc et al., "An Automatic Modulation Recognition Algorithm For			
V/W BS	Spectrum Monitoring Applications," ICC '99, June 19, 1999.			
	Shull et al., "Modulation Classification By Wavelet Decomposition			
Nall	Entropy Analysis1," ASME Press, Vol. 10, 15-20, November, 2000.			
MW BT				
1, ", '	Medav, Dr. Hans-Joachim Kolb, "Signal Processing and Neural			
MAIL	Networks in Surveillance and Radio Monitoring, Medav, 1993, 20			
MM BU	pgs.			
	Medav, "Medav OC-6040, PC-Based 4-Channel Analyzer And			
MA	Demodulator For Narrowband COMINT Signals With Automatic Signal			
_WW_BV	Recognition, " publication date unknown, 8 pgs.			
,	BBN Technologies, "Using Signal Processing to Analyze Wireless			
MAINA -	Data Traffic, May 22, 2002, BBN Technical Memorandum No. 1321,			
_\V\\\\\BW	prepared for DARPA.			
Mall .	Medav, Dr. Hans-Joachim Kolb "Short Time Spectral Analysis of			
_\p\\\\ BX	Audio Signals on a PC," unknown publication date, 6 pgs.			

Examiner Signature Date Considered 5=21=06

^{*} EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant(s)

JAN 22 2004

COGNIO, INC.

101 ORCHARD RIDGE DRIVE, SUITE 350 GAITHERSBURG, MARYLAND 20878

ATENTS AND PUBLICATIONS FOR APPLICANT'S INFORMATION DISCLOSURE STATEMENT

ATTY. DOCKET NO.: Cognio63US3
SERIAL NO.: 10/628,603
APPLICANT(S): Karl A. Miller

GROUP ART UNIT: 2681
FILING DATE: July 28, 2

TODAY'S DATE: January 20, 2004

W BY	Aglient Technologies, "Verifying Bluetooth™ Baseband Signals Using Mixed-Signal Oscilloscopes," 2001, Application Note 1333-3.
WM_BZ	Medav, "Astrid: Analysis System for Telecom Signals, Recognition, Interception and Demodulation of HF/VHF/UHF Radio Signals from 0 to 2 GHz," 2000, 8 pgs.
_MM_ca	Gregory P. Noone, "A Neural Approach to Automatic Pulse Repetition Interval Modulation Recognition," 1999, Procedings of Information Decision and Control.
MM CB	Nolan et al., "Modulation Scheme Recognition Techniques for Software Radio on a General Purpose Platform," unknown publication date, Networks and Telecommunications Research Group, Trinity College.
MM cc	Medav, "Astrid++: Analysis, Monitoring, Recording and Multi- Channel Direction Finding of Wideband Radio Signals," 2000.
MM CD	Taira et al., "Automatic Classification of Analogue Modulation Signals by Statistical Parameters," 1999, Milcom Conference Procedings.
MM CE	Bart Rice et al., "Tutorial -C: Automatic Signal Classification," 1998, EUSIPCO Conference.
MM CF	Oscor, "Oscor 5000 (Omni-Spectral Correlator)," unknown publication date.
MM cg	Logicon Company Literature (Northrup Grumman), "Logicon Specific Emitter Identification," unknown publication date.
<u>ММ</u> сн	Boudreau et al., "A Fast Automatic Modulation Recognition Algorithm And Its Implementation In A Spectrum Monitoring Application," October 2000, Milcom.
MW CI	Ketterer et al., "Classification of Modulation Modes Using Time- Frequency Methods," 1999, IC.
MycJ	Nolan et al., "Modulation Scheme Classification for 4G Software Radio Wireless Networks," unknown publication date.
MM CK	PCT Search Report in International Application No. PCT/US03/13572, 6 pgs.

Examiner Signature	Mylord	Date Considered 5-21-06

^{*} EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant(s)